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**12 CHANNEL POWER AMPLIFIER**

**A30-X12**

# A30-X12

12 CHANNEL POWER AMPLIFIER

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## FEATURES

- 12 independent amplifiers with 30 watts per channel
- Assignable buss and dedicated input for each channel
- Multiple turn-on modes
- Adjacent bridgeable channels (80 watts)
- Stable into low impedance loads (2.66 ohms)
- CSA listed and tested under UL6500 standards

### **Installation friendly design:**

- 12V DC control output
- Individual input gain controls for each channel
- 3V - 30V AC/DC voltage-trigger
- Cascading outputs
- Automatic protection circuit with front panel indicator
- 5-way gold plated binding posts for all speaker outputs
- Gold plated RCA jacks



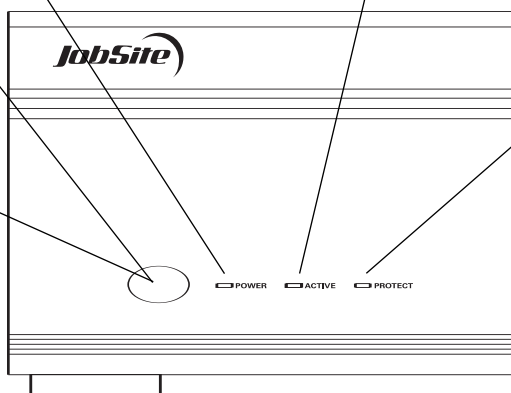
## PRODUCT OVERVIEW

Red “Power” LED confirms the amplifier is connected to a live AC power outlet and that the front panel master power switch is on.

Green “Active” LED lights when the amplifier circuit has been turned on by the Turn-On circuits.

Front panel “Master Power” switch turns off the entire amplifier, including the auto turn- on circuitry.

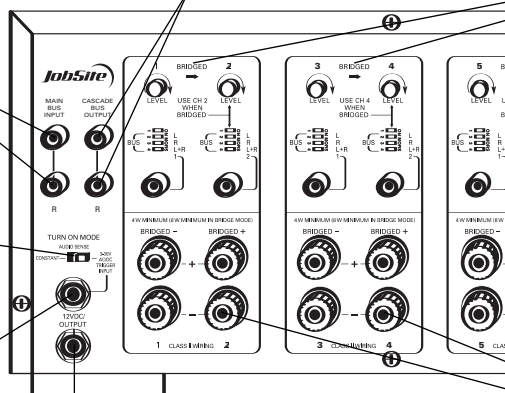
**NOTE: This piece of equipment is not completely disconnected from the main power source when the Master Power Switch is in the OFF position. To completely disconnect unit from AC power, remove the removable AC Power Cord.**



Main Bus Inputs enable you to route a stereo line level source to the BusMatrix™ of the A30-X12.

Cascade outputs of the main bus input enable you to daisy chain multiple amplifiers.

“Turn-On” Mode Switch



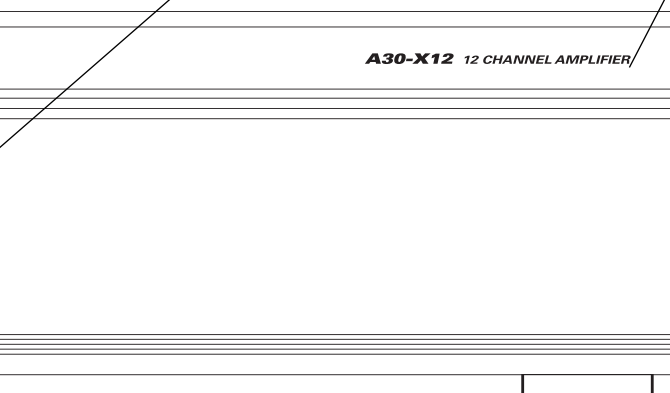
3.5 mm Jack for 12v DC Control Input.

3.5 mm Jack for 12v DC Control Output.

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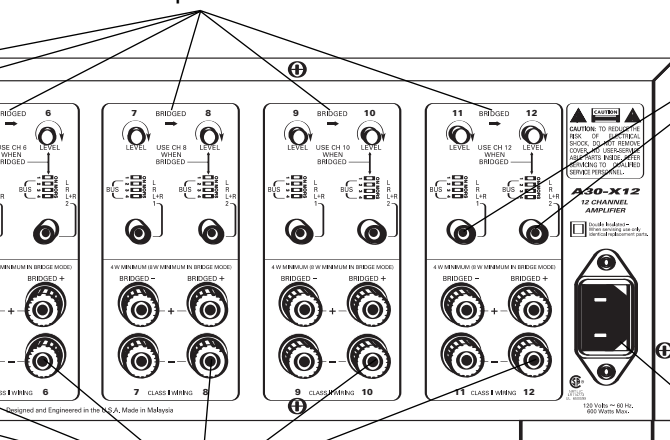
Red "protect" LED  
indicates a fault  
condition (D.C. output).

Attractive extruded  
aluminum front panel.



Bridging switches, BusMatrix controls, dedicated  
inputs and level controls for each channel.

Gold-plated  
RCA jacks



Dual banana spaced binding  
posts for speaker connections.

Removable Two-prong  
16 gauge 6' AC power cord.

## PACKAGE CONTENTS

- A30-X12 x 1
- Removable AC power cord x 1

## PREPARING FOR INSTALLATION

Place the A30-X12 on a flat level surface like a table or shelf. It should be placed upright so that its weight rests on the four attached feet. Placing the weight of the amplifier on the rear or front panel may result in damage to the amplifier's connectors and controls.

The A30-X12, like any hi-fi component, will last much longer if it is given adequate ventilation for proper cooling. When installing the A30-X12 in a cabinet, be sure that the rear of the cabinet is open to fresh air to provide proper cooling (see Figure 1). If the cabinet's design will not accommodate an open rear, install two small "boxer fans" to provide continuous airflow into and out of the cabinet (see Figure 2). Place the A30-X12 so that there is at least 5" of free air space above the chassis. If the amplifier is located on a carpeted surface, place a board under the amplifier's feet. Do not block the ventilation holes on the top and bottom of the A30-X12.

Figure 1

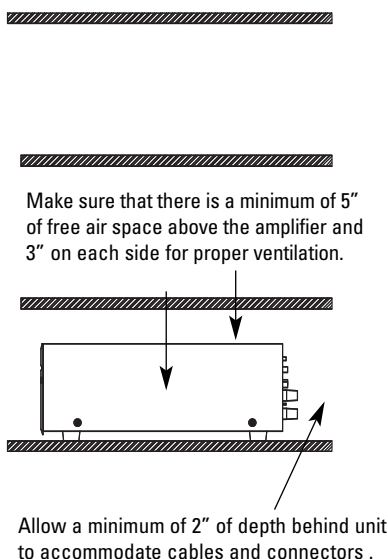
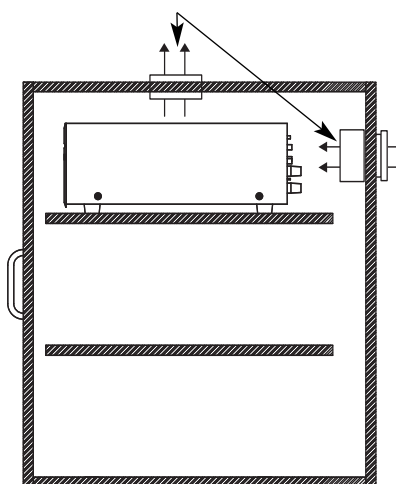


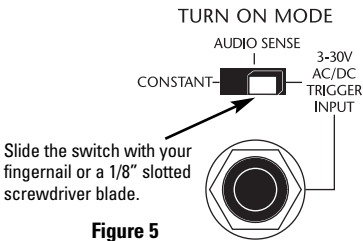
Figure 2

If the cabinet rear is not open to fresh air, install two small "boxer fans" to provide continuous air flow into and out of the cabinet.



Turn-On Modes

The Turn-On Mode selector switch gives you three options for turning the A30-X12 on and off. See figure 5



**Constant:** The auto turn-on circuitry is off. The front panel master power switch operates the amplifier. In is "On", out is "Off".

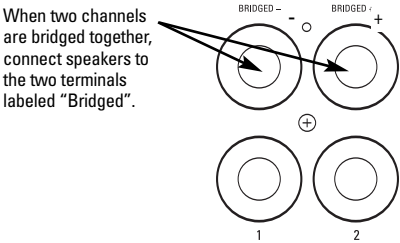
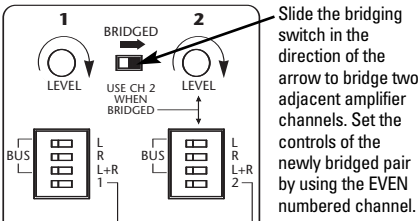
**Audio Sense:** The master switch on the front panel must be in the "On" position. The amplifier is off when there is no audio signal present at either the left or the right input, but the sensing circuitry is on. The turn-on sensing circuitry looks for a tiny amount of audio signal present at any of the audio inputs. If it detects a signal, the amplifier is turned on. Once the audio signal stops, the sensing circuit waits three minutes, then turns the amplifier off.

**3-30 Volt AC/DC Trigger Input:** The master switch on the front panel must be in the "On" position. The amplifier is off when there is no 3-30V AC or DC voltage detected at the trigger input. Once the sensing circuitry detects a voltage and a line-level audio signal is detected at the input, the amplifier is turned on. Once the voltage stops, the sensing circuit instantly turns the amplifier off. Voltage trigger can be supplied by connecting a 12 Volt AC wall adapter to the switched outlet of your stereo receiver.

**DO NOT USE A DC WALL ADAPTER.** The long discharge time of the DC adapter's filter capacitor will delay the turn-off of the amplifier.

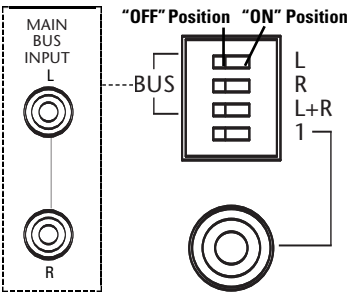
Bridging Two Channels into One

The A30-X12's bridging switches allow you to create a more powerful amplifier channel by combining or "bridging" two adjacent channels.



BusMatrix Input Switch Setting

Each channel has a dedicated BusMatrix DIP switch that assigns that channel's source. To assign a signal from the Main Bus Input, select one of the first three switches, which will give you Left (L), Right (R) or Mono (L+R). To assign the channel's dedicated input select the fourth switch. Only ONE switch should be selected to the "ON" position.



## Configuring Your System

Because the A30-X12 offers so many configuration possibilities it is important to plan carefully before you install it. Draw a block diagram of your system and use the Configuration Worksheet on **page 7** to record how you plan to connect your A30-X12. Here is an example filled out according to the block diagram on **page 7**. Mark the cables with Wire labels, describing where the cables originate from, rather than where they will terminate.

### Tools Required:

- 1/8" Slotted screwdriver
- Wire stripper
- Wire labels

## INSTALLATION

### Complete configuration worksheet

1. Select an appropriate location for the A30-X12
2. Run all the necessary wiring to the A30-X12. Label the wires for future reference.
3. Strip 1/4" of insulation from the end of each speaker wire. Tightly twist the end of each wire until no frayed ends remain.
4. Unscrew the Red and Black speaker wire connectors.
5. Insert each wire into the predetermined Speaker Outputs, using the configuration worksheet as the guide. Tighten the connector until the wire is securely clamped.

6. Connect the Pre-Amplifier or Receiver to the predetermined Channel Inputs, using the configuration worksheet as the guide.
7. Set the BusMatrix input switch setting for each channel.
8. Set the position of the Turn On Mode switch. Connect 12 Volt source if applicable.
9. Connect the AC power cord to the A30-X12, and then plug it into an "Un-switched" AC outlet.
10. Turn the Master Power switch on. The switch is located on the front panel of amplifier.

### Control Output

This terminal provides a 12-Volt DC signal suitable for triggering automated switchers, motorized screens, some electric curtain controls, etc. The trigger voltage is present only when the amplifier is active or "on". When the amplifier turns "off", the 12Volt signal is off.

### Cascade Audio Outputs

The "Cascade Audio Outputs" enable you to connect another amplifier to your preamplifier output. The connectors are gold-plated RCA phono jacks. Connect them to another amplifier's inputs with a standard audio patch cable. The outputs are not buffered; if you wish to daisy chain more than 3 JobSite amplifiers you will need a buffered distribution amplifier.

### Level Adjustment Knobs

The rear panel level adjustment knobs allow you to adjust the maximum output level of any channel individually.



## OPERATION

### Power LED

The power LED indicates that the AC cord is plugged into a working AC power receptacle and that the power switch is in the "On" position.

### Active LED

The rear panel turn-on mode switch determines when and how the amplifier will turn on. The "Active" LED indicates that the amplifier is on.

### Power Switch

The front panel switch is a master or "vacation" power switch. No matter which turn-on mode you have selected, the master power switch will turn off all circuitry—including the sensing circuitry. If you are going on vacation and/or would like to reduce power consumption while you are away, turn the master power switch "off" (push the rocker switch out). When you would like to return to normal operation, turn the switch "On" (push the rocker switch in).

**NOTE: This piece of equipment is not completely disconnected from the main power source when the Master Power Switch is in the OFF position. To completely disconnect unit from AC power, remove the removable AC Power Cord.**

## D.C. Protection

In the event a damaging D.C. signal becomes present on any of the speaker terminals, the D.C. protection circuit shuts down the entire amplifier and the red LED labeled "Protection" illuminates. To reset the amplifier you must turn the front panel power switch "off" and then "on."

### Listening at Higher Volumes

Thirty watts is enough power to play a conventional speaker in a normal sized room loudly enough to completely drown out conversation. Even at levels like that, the A30-X12 will sound clear and clean. However, it requires more power to achieve a reasonable volume of sound in a large room than it does in a small room. It is possible to turn the volume so high that the amplifier runs out of power. This creates "clipping" distortion.

Clipping distortion makes treble sound very harsh and unmusical. When you hear harsh sounding treble from any good speaker, turn the volume down immediately!

If you continue to operate the amplifier at "clipping" power levels the protection circuits will operate when the amplifier overheats. The protection circuits reset when the amplifier's internal circuitry cools. Reduce the volume to prevent a reoccurrence. Perpetually overdriving your speakers and amplifier is abuse and probably voids the manufacturer's warranty of all affected products.

## **TROUBLESHOOTING**

### **No sound on one channel**

BusMatrix DIP switch is not in the correct position. Check your configuration worksheet for the correct setting and verify.

You could have a short circuit or loose wire at speaker or amplifier terminals. Check that connections are secure and that there are no loose strands of wire crossing from the positive to the negative terminal at the back of the amplifier and the speaker.

Audio cable to dedicated input is bad. Connect the non-working channel input to another cable that is known to be good.

Bridging Switch is in the wrong position. Check your configuration worksheet for the correct setting and verify.

The thermal protection circuit has operated because of overheating caused by overdriving or inadequate ventilation.

### **No sound on some or all channels**

BusMatrix DIP switches are not in the correct positions. Check your configuration worksheet and verify all settings.

Audio cable to the main bus inputs is bad. Connect the non-working channel input to another cable that is known to be good.

### **Some or all of the internal amplifier fuses are blown.**

(Return the amplifier to your dealer for service).

### **Hum from all of the speakers**

Hum may be caused by a ground loop between two components in the system. To test for a ground loop, try reversing the ac plugs of each of the components in the system, that has non-polarized plugs.

Check for faulty cables, faulty source material, an ungrounded phono system, cable TV feed or a defective component.

### **Amp will not turn on**

AC power cord must be plugged into a working outlet.

Master power switch must be on.

Test that the AC power receptacle is working. If the outlet tests O.K., the internal fuses are blown. Return the amplifier to your dealer for service.

### **Sound is distorted on one or all of the channels at normal volumes**

BusMatrix DIP switches are not in the correct positions. Check your configuration worksheet and verify all settings.

### **Normal volume cannot be reached**

One of the internal amplifier fuses is blown.  
(Return the amplifier to your dealer for service).

### **Bass sound is weak and the stereo image is "phasey" sounding in one room**

Check that the bridging switch is "Off". If two adjacent channels are connected normally but the bridging switch is set to the "Bridged" position, the two speakers will play out of phase with each other.

The loudspeakers are wired out of phase. Reverse the connections at the back of one speaker.

CONFIGURATION WORKSHEET

BUS INS & OUTS		CONNECTED TO		
Left Main Bus				
Right Main Bus				
Cascade Output				
CH #	BRIDGED	DIP	INPUT SOURCE	SPEAKER
1	<input type="checkbox"/>			
2				
3	<input type="checkbox"/>			
4				
5	<input type="checkbox"/>			
6				
7	<input type="checkbox"/>			
8				
9	<input type="checkbox"/>			
10				
11	<input type="checkbox"/>			
12				
MODE SETTINGS		IN USE	SPECIAL CONNECTIONS OR NOTES	
Constant		<input type="checkbox"/>		
Audio Sense		<input type="checkbox"/>		
Voltage Trigger		<input type="checkbox"/>		
Control Output		<input type="checkbox"/>		

## **SPECIFICATIONS**

### **Power handling:**

30 watts x 12

### **Frequency response:**

5 Hz to 50 kHz +/- 3dB

### **Signal noise ratio:**

>= 85 dB

### **Power supply**

AC120V, 60 Hz

### **Power consumption**

9 amps

### **Dimensions:**

17" wide x 5-1/2" high (including feet) x

15" deep

**Warranty:** 2 year limited

## LIMITED WARRANTY

JobSite Systems ("JOBSITE"), a Niles Audio Corporation company, warrants its passive products (those not requiring AC or battery power) to the original purchaser to be free of manufacturing defects in material and workmanship for a period of ten years from date of purchase.

JOBSITE warrants its passive loudspeaker products (those not requiring AC or battery power) to the original purchaser to be free of manufacturing defects in material and workmanship for a period of five years from date of purchase.

JOBSITE warrants its indoor/outdoor loudspeaker products to the original purchaser to be free of manufacturing defects in material and workmanship for a period of two years from date of purchase.

JOBSITE warrants its all weather rock loudspeaker products to the original purchaser to be free of manufacturing defects in material and workmanship for a period of five years from date of purchase.

JOBSITE warrants its active products (those requiring AC or battery power) to the original purchaser to be free of manufacturing defects in material and workmanship for a period of two years from date of purchase.

This Warranty is subject to the following additional conditions and limitations. The Warranty is void and inapplicable if JOBSITE deems that the product has been used or handled other than in accordance with the instructions provided by the manufacturer, including, but not limited to, damage caused by accident, mishandling, improper installation, abuse, negligence, or normal wear and tear, or any defect caused by repair to the product other than by JOBSITE or an authorized JOBSITE wholesale distributor.

To obtain warranty service, you must write to JOBSITE: Include your name, address, telephone number, model number and serial number of your unit, and a brief description of the problem.

A factory Return Authorization Number will be sent to you. **DO NOT RETURN ANY UNIT WITHOUT FIRST RECEIVING WRITTEN AUTHORIZATION AND SHIPPING INSTRUCTIONS FROM JOBSITE.**

If the above conditions are met, the purchaser's sole remedy shall be to return the product to JOBSITE, in which case JOBSITE will repair or replace, at its sole option, the defective product without charge for parts or labor. JOBSITE will return the unit repaired or replaced under warranty by shipping it by its usual shipping method from the factory (only) at its expense within the United States of America. **THERE ARE NO OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, EITHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT.**

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER/PURCHASER. NILES SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES EXCEPT TO THE EXTENT PROVIDED (OR PROHIBITED) BY APPLICABLE LAW.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

For the name of the nearest authorized JOBSITE wholesale distributor, contact:

JobSite Systems

12331 S.W. 130 Street, Miami, Florida 33186

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